Attachment H

Proposal # 2001- K-206 (Office Use Only)

PSP Cover Sheet (Attach to the front of each proposal)

Proposal Title: San Joaquin River Chinook Salmon Age Determination

Applicant Name: California Department of Fish and Game

Contact Name: Tim Heyne

Mailing Address: P O Box 10, La Grange, California 95329

Telephone: (209) 853-2533

Fax: (209) 853-9017

Email: theyne@dfg.ca.gov

Amount of funding requested: $ 54,554.50

Some entities charge different costs dependent on the source of the funds. If it is different for state or federal funds list below.

State cost ____________ Federal cost ____________

Cost share partners? x Yes ___ No

Identify partners and amount contributed by each Department of Fish and Game providing facilities, equipment, field collection, contract management and administrative support.

Indicate the Topic for which you are applying (check only one box).

- ☐ Natural Flow Regimes
- ☐ Nonnative Invasive Species
- ☐ Channel Dynamics/Sediment Transport
- ☐ Flood Management
- ☐ Shallow Water Tidal/ Marsh Habitat
- ☐ Contaminants
- ☐ Beyond the Riparian Corridor
- ☐ Local Watershed Stewardship
- ☐ Environmental Education
- ☐ Special Status Species Surveys and Studies
- XX Fishery Monitoring, Assessment and Research
- ☐ Fish Screens

What county or counties is the project located in? Merced, Stanislaus, San Joaquin

What CALFED ecozone is the project located in? See attached list and indicate number. Be as specific as possible 12.1, 12.2, 12.3, 12.4, 13.1, 13.2, 13.3

Indicate the type of applicant (check only one box):

- XX State agency
- ☐ Public/Non-profit joint venture
- ☐ Local government/district
- ☐ University
- ☐ Other: ____________
- ☐ Federal agency
- ☐ Non-profit
- ☐ Tribes
- ☐ Private party

Indicate the primary species which the proposal addresses (check all that apply):

- ☒ San Joaquin and East-side Delta tributaries fall-run chinook salmon
- ☐ Winter-run chinook salmon
- ☐ Spring-run chinook salmon
- ☐ Late-fall run chinook salmon
- ☐ Fall-run chinook salmon
- ☐ Delta smelt
- ☐ Longfin smelt
- ☐ Splittail
- ☐ Steelhead trout
- ☐ Green sturgeon
- ☐ Striped bass
- ☐ White Sturgeon
- ☐ All chinook species
- ☐ Waterfowl and Shorebirds
- ☐ All anadromous salmonids
- ☐ Migratory birds
- ☐ American shad
- ☐ Other listed T/E species: ______

Indicate the type of project (check only one box):

- ☒ Research/Monitoring
- ☐ Watershed Planning
- ☐ Pilot/Demo Project
- ☐ Education
- ☐ Full-scale Implementation

Is this a next-phase of an ongoing project? Yes x No___
Have you received funding from CALFED before? Yes x No___

If yes, list project title and CALFED number See below.

Have you received funding from CVPIA before? Yes x No___

If yes, list CVPIA program providing funding, project title and CVPIA number (if applicable):

San Joaquin River Chinook Salmon Age Determination

By signing below, the applicant declares the following:

- The truthfulness of all representations in their proposal;
- The individual signing the form is entitled to submit the application on behalf of the applicant (if the applicant is an entity or organization); and
- The person submitting the application has read and understood the conflict of interest and confidentiality discussion in the PSP (Section 2.4) and waives any and all rights to privacy and confidentiality of the proposal on behalf of the applicant, to the extent as provided in the Section.

W. E. Loudermilk
Printed name of applicant

Dean Marston for
Signature of applicant W. E. Loudermilk

99-B153	Merced River Corridor Restoration Phase III
98-C1009	Merced River Salmon Habitat Enhancement Phase III
98-H1001	SJV Salmonids in the Classroom Program Enhancement
97-I121	Developing a Genetic Baseline for San Joaquin Salmon
97-H-125	Gravel at Basso Bridge

Executive Summary

Location: Project will occur entirely in the counties of Merced, Stanislaus, and San Joaquin, with the majority of the work performed near the town of La Grange, Stanislaus County.

Type: Fishery Monitoring, Assessment and Research

Objective: Provide clarification of the age of chinook salmon that have returned to the rivers in the San Joaquin Basin to spawn.

Approach: Laboratory age determinations using scales that have already been collected from chinook carcasses during surveys in the 1980s and 1990s. This is a standard technique in fisheries biology.

Hypothesis: The distribution of ages within each year's group of spawning salmon, which has been determined by length-frequency distribution, is not entirely correct and that age determination from the collected scale samples will improve evaluations that have previously been performed to determine the effect of environmental conditions on chinook salmon during their juvenile stages of life.

Uncertainty: There is a small probability that scales will not be adequate for these age determinations but previous funding from CVPIA is being used to demonstrate the utility of the scale reading and protocols to resolve problems in the age determination. This should reduce the uncertainty to near zero. Additionally this process of age determination does not ensure that re-evaluation of past studies will be performed but it is assumed that with the high level of interest in recovery of those populations that this information will be extensively used in other evaluations.

Expected Outcome: Primary product of this evaluation will be a table of length distributions of salmon in each age group (2, 3, 4, 5) by year. This is expected to greatly changes the numbers of fish identified as 3, 4 and 5 year old fish in most years. Individuals identified as two year olds are not expected to change drastically in number.

Applicability to CALFED Goals: This project is aimed primarily at reducing scientific uncertainty in salmon populations evaluations which may have a large effect on future choices of projects and the success of CALFED overall. However salmon population estimates are also used in a large number of the monitoring plans for restoration projects presently being implemented and this information will improve the ability of those plans to determine the actual results of these restoration projects

PROJECT DESCRIPTION

Statement of Problem

Problem: The San Joaquin River basin is the southern-most extreme of the present chinook salmon distribution in the Central Valley of California. San Joaquin River chinook salmon spawn primarily in three eastside tributaries; the Stanislaus, the Tuolumne and the Merced Rivers. Although some spring-run chinook occur in the basin, the majority are fall-run and they will be the subjects of this study.

Carcass surveys are the primary monitoring tool for evaluating the health of the chinook salmon stocks in the San Joaquin River basin. These surveys have been conducted on a fairly consistent basis since 1953, with scale samples and specific length data being collected more consistently since the early 1980's. Presently, more than 4,000 scale samples are available from spawning fall-run chinook in this basin. Scales were removed from carcasses, above the lateral line and below or slightly posterior to the dorsal fin. This data was collected during carcass surveys that DFG conducted on all three tributaries to the San Joaquin River.

Salmon management in the San Joaquin River system has been plagued by many environmental and physical constraints. One of those constraints is the lack of information on the age structure of the returning adult salmon populations. To address this shortcoming the California Department of Fish and Game (DFG) proposes to process their existing scale inventory through preparation, mounting, reading, analysis and then report their findings in a formal report.

Age of the spawning chinook salmon has traditionally been determined by length-frequency analysis and the identification of nadirs in the distribution of lengths. While this works fairly well for identifying the break between 2 and 3 year olds, the extent of overlap is so great among 3, 4 and 5 year-olds that the technique is very limited. In order to more accurately assign fish of various lengths to cohort, age determinations need to made for fish of a variety of fork lengths in each year of carcass survey data.

Conceptual Model: Chinook salmon populations have a complex life history that involves several different phases, or life stages that are lived in widely varying habitats. The migration of this anadromous fish takes them from freshwater streams in early life to several years in the pacific ocean before returning to spawn in the stream of their birth. Between river and ocean the fish must pass through an estuary which varies in size depending on the particular river. Passage through and life in these different waters exposes the chinook to many causes of mortality, both natural and man-made.

Much scientific evaluation has been performed on chinook salmon and their life history in an attempt to understand those causes of mortality in order that depressed chinook salmon populations maybe restored. One of the main scientific uncertainties in these evaluations has been, from which cohort are the spawning salmon derived? This project will answer that question for all San Joaquin River chinook salmon that spawned during the 1980s and 1990s. Once the spawning adults are correctly placed in the cohort they were born (the year), all evaluations that have been performed using spawning escapement numbers will need to be re-evaluated. The evaluations that have looked at the environmental conditions in the river during a cohort's year of birth, are of particular interest. It is hoped that correct placement of chinook spawning populations into their birth cohorts will clarify the effects of streamflow, water temperatures, water diversion and water quality on outmigrating chinook salmon juveniles.

Hypothesis Being Tested: The distribution of ages within each year's group of spawning salmon, which has been determined by length-frequency distribution, is not entirely correct and that age determination from the collected scale samples will improve evaluations that have previously been performed to determine the effect of environmental conditions on chinook salmon during their juvenile stages of life.

Adaptive Management: The fact that this proposal is the second phase of a project is a result of adaptive management planning. The first phase of this project was to complete an evaluation of the feasibility of using scales to determine age of chinook salmon in the San Joaquin Basin. During this second phase extensive QA/QC will be utilized to detect and correct problems with age determinations and data entry.

Educational Objectives: Provide researchers in the San Joaquin River basin with accurate information regarding the numbers of spawning chinook of each age group in all years for which data is available.

Primary Biological/Ecological Objectives: Clarify the allocation of the number of spawning chinook in the San Joaquin Basin to age groups and therefore to cohort of birth.

PROPOSED SCOPE OF WORK

Location and Geographic Boundaries of the Project

Project will occur entirely in the counties of Merced, Stanislaus, and San Joaquin, with the majority of the work performed near the town of La Grange, Stanislaus County. The ecological zone affected will be the East San Joaquin Basin.

Approach: The following tasks will be performed:

There will be three tasks in this project:

Task 1 - Clean & Prepare Known-Age Scales and Validate Technique

A. Cleaning the known-age scales and attaching them to a glass slide for viewing.

B. Organization and inventory of the scale collection. Primary product will be a table of available scale samples with fish #, Collection date, Sex and Fork Length.

C. Evaluate and validate scale reading technique for scales from known-age fish. This includes an assessment of scale resorption to develop protocol for the detection of annuli reabsorption. The products will be a report that includes an assessment of the overall effectiveness of the reading technique for scales of known-age fish, a protocol for identification of annulus resorption, and an assessment of the effectiveness of the protocol. This task requires data management and report writing that are separate from Task 3.

Task 2 - Clean & Prepare Scales remainder of collection and Scale Reading with Quality Control.

A. Age determinations will be made for all scale samples in the collection. This will involve two readers assigning ages to all scale samples. The scales will be viewed using primarily a microfiche reader. There will be a one month training period for all new readers who will be expected to exceed a certain percent repeatability on reference collects of slides. This task should be completed within two years of the project being funded. The primary product will be a table of age distribution by fork length category by year.

B. This is the quality control task. This involves both reading scales from fish of known age (coded-wire tagged fish known as CWTs) and rereading of 10% of all scales by both readers. This allows for determination of both precision and accuracy of the process the readers are using. The readers will also read a reference set of scales every 3 months. This will detect changes in interpretation by readers as they gain experience. Training should minimize the amount of "drift" in reader interpretation. Primary product will be a table of percent precision and accuracy of both readers by river by year. Also, variability between readers will be evaluated on this table.

Task 3 -Data Management, Analysis and Reporting

A. Data management is the principle portion of this task. The data will be organized in a database and summary tables will be created.
B. Data will be analyzed statistically.
C. Primary product will be a report analyzing spawning escapements on the basis of cohort contribution and a summary of the total spawning escapement contributed by each cohort (brood year).

Monitoring and Assessment

The principle monitoring and assessment for this project is the following QA/QC program

First all readers will be required to reread 10% of the scales that they previously read. This will be done in each year with random selection of the samples to reread. This evaluation will give us precision within rereaders.

A. Precision between readers is the second monitoring element. Because all scale samples will be read by two readers, the precision between readers can be very accurately estimated.

B. The readers will also read a reference set of scales each month in order to determine if the individuals age determination is changing.

C. Each year for which samples are available known age fish are present (CWT fish, primarily from Merced River Hatchery). Since these will be read at the same time as the fish of unknown age and the reader will not know which fish are known and which are not those scale samples will provide a test of the accuracy of age determinations.

D. The fifth quality control system will be a read of 10% of randomly selected scales by an external lab. The external lab has not been chosen yet but will most likely be Moss Landing Marine Lab (Dr. Gregor Cailliet) or DFG's north coast age determination lab (Mr. Bill Jong).

All of these quality control components form matched pairs. These will be compared to look for statistical differences using coefficient of variation (CV), Wilcoxon matched-pairs rank test and paired t-test. Due to the expected lack of normality in the data interpretation of the results will most likely be best done with the first two of these three evaluations.

Expected Outcomes

Primary product of this evaluation will be a table of length distributions of salmon in each age group (2, 3, 4, 5) by year. This is expected to greatly changes the numbers of fish identified as 3, 4 and 5 year old fish in most years. Individuals identified as two year olds are not expected to change drastically in number.

Work Schedule

Task 1 will be completed using prior funding from AFRP during August to December of 2000. Task 2 will be completed January to June in 2001 and Task 3 will be completed in March to December of 2001.

Deliverables

Task 1 - Clean & Prepare Known-age Scales and Validate Technique.
Completed December 31, 2000
Products:
Table of available scale samples with fish #, Collection date, Sex and Fork Length
Protocol for detection of annuli reabsorption.
Report evaluating the overall efficacy of classifying known-age fish and the utility of protocol for detecting annuli resorption.

Task 2 - Clean & Prepare Scales remainder of collection and Scale Reading with Quality Control.
Completed September 30, 2001
Products:
Table of percent age by fork length for each year separated by sex.
Tables of precision, accuracy and variability of readers

Subcontract with CSU system if necessary for external lab QC.
Table of inter- and intra-reader variability by year (includes reference collection)

Task 3 - Data Management, Analysis and Reporting.
Data Management
Completed October 30, 2001
Products:
Database and summary tables

Preparation of report.
Completed December 31, 2001
Products:

Final report of age determinations and cohort reconstruction (1980 to 1998).

APPLICABILITY TO CALFED ERP GOALS AND IMPLEMENTATION PLAN AND CVPIA PRIORITIES

This project is aimed primarily at reducing scientific uncertainty in salmon populations evaluations which may have a large effect on future choices of projects and the success of CALFED overall. However salmon population estimates are also used in a large number of the monitoring plans for restoration projects presently being implemented and this information will improve the ability of those plans to determine the actual results of these restoration projects.

Many restoration plans have been put forward for the San Joaquin River. These include the "Restoring Central Valley Streams: A Plan for Action" by California Department of Fish and Game, the "San Joaquin River Management Plan" by California's Resources Agency, the "Revised Draft Restoration Plan (RDRP)" for the Anadromous Fish Restoration Program by U.S. Fish and Wildlife Service and various plans by the multi-agency CALFED program. A critical component of these restoration plans is the monitoring of the effectiveness of the proposed actions. Cohort analysis will assist in watershed-specific evaluation of overall success of restoring the watershed. This analysis, in conjunction with outmigration indices and harvest estimates, will also help in the identification of limiting factors in the system.

A better understanding of the limiting factors in the system will help in the adaptive management process by assisting in identifying restoration actions and water management decisions that are most effective and least effective. Although this project is not linked to the AFRP through any stream-specific actions, it is linked via the watershed-specific monitoring it provides and its ability to reduce scientific uncertainty. The RDRP also has one of its objectives to "Collect fish population, health, and habitat data to facilitate evaluation of restoration actions." This evaluation is also part of a recommended tool in the CVPIA (section 3406(b)(16).

Relationship to Other Ecosystem Restoration Projects

Many monitoring plans for restoration projects in the San Joaquin Basin have included spawning escapement information in their monitoring plans. It is hoped this project would make those even more useful. It is further hoped that this information would inform the CalFed on which projects will be most useful in the future.

Projects Previously Funded by CALFED or CVPIA

The San Joaquin Valley – Southern Sierra Region of the DFG has received funding for several other projects from CALFED. These are:

2000 San Joaquin River Salmon Age Determination: Phase I - *SOW just completed and USFWS is working on the contract.*

99-B153 Merced River Corridor Restoration Phase III – *recently constructed within budget; revegetation and monitoring underway*

98-C1009 Merced River Salmon Habitat Enhancement Phase III (joint w/DWR) – *final design in preparation; a supplementary proposal to address anticipated funding shorfalls; environmental permitting initiated 2/15/01. (funding in Process*

98-H1001 SJV Salmonids in the Classroom Program Enhancement – *completed; translated materials in use*

97-I121 Developing a Genetic Baseline for San Joaquin Salmon – *contract with UC Davis in place; year 1 of 3 completed.*

97-H122 Merced River Ranch Acquisition and Restoration (joint w/WCB) – *acquisition phase moving close to escrow*

97-H125 Gravel at Basso Bridge – *completed; monitoring underway*

97-H123 Basso Bridge Land Acquisition (joint w/WCB) – *acquisition proceeding on 1 of 2 parcels*

QUALIFICATIONS

Department of Fish and Game

Tim Heyne (Associate Biologist, Tuolumne River Restoration Center - SJV-SSR)
Tim Heyne is currently serving as field leader for the San Joaquin Salmon Project out of La Grange. Prior to this appointment he has work for 15 years on various aspects of fish biology in the San Joaquin Basiin. He has worked with larval fish identification, juvenile striped bass determination, reservoir fishery evaluation, centrarchid age determinations, river toxicity to salmon, salmon physiology and trout life history evaluations. He received his Bachelors in Biology at California State University Fresno in 1983 and his Masters of Biology at California State University Fresno in 1993.

COSTS

This project is a multi-year action that can proceed on a phased basis. The AFRP contribution from Federal fiscal year (FFY) 2000 will require approximately $45,262 dollars (phase 1) and this PSP is request in funding for the following (phase 2) year will require approximately $54,554.5 dollars. This level of funding will ensure completion of the project in a timely manner. DFG will be providing approximately $70,000 in matching funds through the salary of the principal investigator and equipment used on the project. The following two tables layout the budgets for the both phases of the project only moneys for tasks 2 and 3 are relevant to this PSP. All labor costs for phase 2 will consist of the use of Scientific Aides for 3,500 hours at a rate of $11.00/hour.

Cost Breakdown Table:

Task	Direct Labor	Benefits	(19.9%) Overhead	Service Contracts	Materials	Misc.	Total
1A	1500@ $11.00		$696.51			$2,000*	$22,181.50
1B	250@ $11.00		$547.25				$3,297.25
1C	1500@ $11.00		$3,283.50				$19,783.50
2A Phase 2	2000@ $11.00		$4,776.00			$2,000*	$28,776.00
2B	500 @ $11.00		$1,094.50				$6,594.50
3A	1000 @ $11.00		$3,184.00	$5,000**			$19,184.00
3B & 3C							$0.00
Total	$59,250.04		$13,581.76	$5,000.00		$4,000.00	$99,816.75

* This includes misc. costs such as microscope slides and mechanical breakdown repair.
** This is a contingency value in case a contract is required with CSU system for external QC.

Quarterly Budget Table:

Task	July thru Sep 2000	Oct thru Dec 2000	Jan thru Mar 2001	Apr thru Jun 2001	July thru Sep 2001	Total
1A	$11,090.75	$11,090.75	$0.00	$0.00	$0.00	$22,181.50
1B	$1,650.00	$1,647.25	$0.00	$0.00	$0.00	$3,297.25
1C	$9,891.75	$9,891.75	$0.00	$0.00	$0.00	$19,783.50
2A – Phase 2	$0.00	$0.00	$21,000.00	$5,776.00	$2,000.00	$28,776.00
2B	$0.00	$0.00	$3,250.00	$2,300.00	$1,044.50	$6,594.50
3A	$0.00	$0.00	$8,356.00	$5,328.00	$5,500.00	$19,184.00
3B & 3C	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00
Total	$22,632.50	$22,629.75	$32,606.00	$13,404.00	$8,544.50	$99,816.75

LOCAL INVOLVEMENT

This project will benefit the management of San Joaquin River fall-run chinook salmon, an ESU listed as a candidate species under the Federal Endangered Species Act of 1973. There is wide-spread local support throughout the basin for this work. Specifically, the Lower Tuolumne River Technical Advisory Committee, Merced River Technical Advisory Committee and the Stanislaus Fish Group are all supportive of this effort.

COMPLIANCE WITH STANDARD TERMS AND CONDITIONS

We intend to comply with the standard terms and conditions described in the PSP, and are not aware of any impediments to compliance.

LETTERS OF NOTIFICATION

State of California - The Resources Agency
DEPARTMENT OF FISH AND GAME
http://www.dfg.ca.gov
1416 Ninth Street
Sacramento, CA 95814

GRAY DAVIS, *Governor*

County Board of Supervisors
2222 "M" Street
Merced, CA 95340

Dear County Board of Supervisors:

Department of Fish and Game Application for Calfed Research Grant

This letter is to inform you that the Department of Fish and Game is submitting a grant request to Calfed for research activities that could occur within your county. The purpose of this grant is to complete the second phase of a Central Valley Project Improvement Act (CVPIA) contract for chinook salmon age determination work.

A copy of our grant application is attached. If awarded, the earliest that grant funds might be available is February 2000. The second phase of our research program is scheduled to commence July 1, 2001. If we are successful, we will be in contact with the appropriate jurisdictions to keep you notified of our progress. If you have questions at this time, please contact Mr. Timothy Heyne, San Joaquin River Basin Coordinator (209-853-2533).

Sincerely,

Dean Marston for

W. E. Loudermilk
Regional Manager

Merced = County Board of Supervisors
2222 "M" Street
Merced, CA 95340

Planning Department
2222 "M" Street
Merced, CA 95340

County Office of Education
632 West 13th Street
Merced, CA 95340

Stanislaus = County Board of Supervisors
1010 10th Street Place
Modesto, CA 95340

Planning Department
1100 "H" Street
Modesto, CA 95354

County Office of Education
100 "H" Street
Modesto, CA 95354

San Joaquin = County Board of Supervisors
222 East Weber, Room 701
Stockton, CA 95202

Planning Department (Community Development)
1810 East Hazelton
Stockton, CA 95205

County Office of Education (Superintendent of Schools)
2901 Arch/Airport Road
Stockton,95206

ENVIRONMENTAL COMPLIANCE CHECKLIST

Environmental Compliance Checklist

All applicants must fill out this Environmental Compliance Checklist. Applications must contain answers to the following questions to be responsive and to be considered for funding. _Failure to answer these questions and include them with the application will result in the application being considered nonresponsive and not considered for funding._

1. **Do any of the actions included in the proposal require compliance with either the California Environmental Quality Act (CEQA), the National Environmental Policy Act (NEPA), or both?**

   ______ **YES**   __X__ **NO**

2. **If you answered yes to # 1, identify the lead governmental agency for CEQA/NEPA compliance.**

   ____
   Lead Agency

3. **If you answered no to # 1, explain why CEQA/NEPA compliance is not required for the actions in the proposal.**

   Actions are categorically exempt.

4. **If CEQA/NEPA compliance is required, describe how the project will comply with either or both of these laws. Describe where the project is in the compliance process and the expected date of completion.**

5. **Will the applicant require access across public or private property that the applicant does not own to accomplish the activities in the proposal?**

   ______ **YES**   __X__ **NO**

   If yes, the applicant must attach written permission for access from the relevant property owner(s). Failure to include written permission for access may result in disqualification of the proposal during the review process. Research and monitoring field projects for which specific field locations have not been identified will be required to provide access needs and permission for access with 30 days of notification of approval.

6. Please indicate what permits or other approvals may be required for the activities contained in your proposal. Check all boxes that apply.

LOCAL		
Conditional use permit	___	
Variance	___	
Subdivision Map Act approval	___	
Grading permit	___	
General plan amendment	___	
Specific plan approval	___	
Rezone	___	
Williamson Act Contract cancellation	___	
Other ___________ (please specify)		
None required	X	

STATE		
CESA Compliance	___	(CDFG)
Streambed alteration permit	___	(CDFG)
CWA § 401 certification	___	(RWQCB)
Coastal development permit	___	(Coastal Commission/BCDC)
Reclamation Board approval	___	
Notification	___	(DPC, BCDC)
Other ___________ (please specify)		
None required	X	

FEDERAL		
ESA Consultation	___	(USFWS)
Rivers & Harbors Act permit	___	(ACOE)
CWA § 404 permit	___	(ACOE)
Other ___________ (please specify)		
None required	X	

DPC = Delta Protection Commission
CWA = Clean Water Act
CESA = California Endangered Species Act
USFWS = U.S. Fish and Wildlife Service
ACOE = U.S. Army Corps of Engineers

ESA = Endangered Species Act
CDFG = California Department of Fish and Game
RWQCB = Regional Water Quality Control Board
BCDC= Bay Conservation and Development Comm.

LAND USE CHECKLIST

Land Use Checklist

All applicants must fill out this Land Use Checklist for their proposal. Applications must contain answers to the following questions to be responsive and to be considered for funding. *Failure to answer these questions and include them with the application will result in the application being considered nonresponsive and not considered for funding.*

1. **Do the actions in the proposal involve physical changes to the land(i.e. grading, planting vegetation, or breeching levees) or restrictions in land use (i.e. conservation easement or placement of land in a wildlife refuge)?**

   ____ **YES** __X__ **NO**

2. **If NO to # 1, explain what type of actions are involved in the proposal (i.e., research only, planning only).**

   Research activities

3. **If YES to # 1, what is the proposed land use change or restriction under the proposal?**

4. **If YES to # 1, is the land currently under a Williamson Act contract?**

   ____ **YES** ____ **NO**

5. **If YES to # 1, answer the following:**

   Current land use ____________
   Current zoning ____________
   Current general plan designation ____________

6. **If YES to #1, is the land classified as Prime Farmland, Farmland of Statewide Importance or Unique Farmland on the Department of Conservation Important Farmland Maps?**

   ____ **YES** ____ **NO** ____ **DON'T KNOW**

7. **If YES to # 1, how many acres of land will be subject to physical change or land use restrictions under the proposal?**

   ____

8. **If YES to # 1, is the property currently being commercially farmed or grazed?**

   ____ **YES** ____ **NO**

9. **If YES to #8, what are**

   the number of employees/acre ____________
   the total number of employees ____________

10. Will the applicant acquire any interest in land under the proposal (fee title or a conservation easement)?

________ YES X NO

11. What entity/organization will hold the interest?____________________________________

12. If YES to # 10, answer the following:

Total number of acres to be acquired under proposal ____________________
Number of acres to be acquired in fee ____________________
Number of acres to be subject to conservation easement ____________________

13. For all proposals involving physical changes to the land or restriction in land use, describe what entity or organization will:

manage the property ____________________

provide operations and maintenance services ____________________

conduct monitoring ____________________

14. For land acquisitions (fee title or easements), will existing water rights also be acquired?

________ YES ________ NO

15. Does the applicant propose any modifications to the water right or change in the delivery of the water?

________ YES X NO

16. If YES to # 15, describe____

LETTERS OF SUPPORT – n/a

CONTRACT FORMS

SF 424

DWR 4187

APPLICATION FOR FEDERAL ASSISTANCE

OMB Approval No. 0348-0043

2. DATE SUBMITTED

Applicant Identifier

1. TYPE OF SUBMISSION:

Application
☐ Construction
☒ Non-Construction

Preapplication
☐ Construction
☐ Non-Construction

3. DATE RECEIVED BY STATE

State Application Identifier

4. DATE RECEIVED BY FEDERAL AGENCY

Federal Identifier

5. APPLICANT INFORMATION

Legal Name:

Organizational Unit:
San Joaquin Valley & Southern Sierra Region

Address *(give city, county, State, and zip code)*:
1234 E. Shaw Avenue
Fresno, CA 93710

Name and telephone number of person to be contacted on matters involving this application *(give area code)*
Tim Heyne (209) 853-2533

6. EMPLOYER IDENTIFICATION NUMBER (EIN):
94-1697567

7. TYPE OF APPLICANT: *(enter appropriate letter in box)* A

A. State
B. County
C. Municipal
D. Township
E. Interstate
F. Intermunicipal
G. Special District
H. Independent School Dist.
I. State Controlled Institution of Higher Learning
J. Private University
K. Indian Tribe
L. Individual
M. Profit Organization
N. Other (Specify) ____________

8. TYPE OF APPLICATION:

☐ New ☒ Continuation ☐ Revision

If Revision, enter appropriate letter(s) in box(es) ☐ ☐

A. Increase Award B. Decrease Award C. Increase Duration
D. Decrease Duration Other *(specify)*:

9. NAME OF FEDERAL AGENCY:

10. CATALOG OF FEDERAL DOMESTIC ASSISTANCE NUMBER: XX-XXX

TITLE:

11. DESCRIPTIVE TITLE OF APPLICANT'S PROJECT:
San Joaquin River Chinook Salmon Age Determination

12. AREAS AFFECTED BY PROJECT *(Cities, Counties, States, etc.)*:
Merced, Stanislaus and San Joaquin

13. PROPOSED PROJECT

Start Date: 06/01/01
Ending Date: 06/03/02

14. CONGRESSIONAL DISTRICTS OF:

a. Applicant: 18th, 19th, 20th
b. Project: 18th, 19th, 20th

15. ESTIMATED FUNDING:

a. Federal	$ .00
b. Applicant	$ .00
c. State	$ .00
d. Local	$ .00
e. Other	$ .00
f. Program Income	$ .00
g. TOTAL	$ 54,554 .00

16. IS APPLICATION SUBJECT TO REVIEW BY STATE EXECUTIVE ORDER 12372 PROCESS?

a. YES. THIS PREAPPLICATION/APPLICATION WAS MADE AVAILABLE TO THE STATE EXECUTIVE ORDER 12372 PROCESS FOR REVIEW ON:

DATE ____________

b. No. ☒ PROGRAM IS NOT COVERED BY E. O. 12372
☐ OR PROGRAM HAS NOT BEEN SELECTED BY STATE FOR REVIEW

17. IS THE APPLICANT DELINQUENT ON ANY FEDERAL DEBT?

☐ Yes If "Yes," attach an explanation. ☐ No

18. TO THE BEST OF MY KNOWLEDGE AND BELIEF, ALL DATA IN THIS APPLICATION/PREAPPLICATION ARE TRUE AND CORRECT, THE DOCUMENT HAS BEEN DULY AUTHORIZED BY THE GOVERNING BODY OF THE APPLICANT AND THE APPLICANT WILL COMPLY WITH THE ATTACHED ASSURANCES IF THE ASSISTANCE IS AWARDED.

a. Type Name of Authorized Representative: W.E. Loudermilk
b. Title: Regional Manager
c. Telephone Number: (559) 243-4005, Ext. 156
d. Signature of Authorized Representative: Dean Marston for W.E. Loudermilk
e. Date Signed: 5-15-00

Public reporting burden for this collection of information is estimated to average 45 minutes per response, including time for reviewing instructions, searching existing data sources, gathering and maintaining the data needed, and completing and reviewing the collection of information. Send comments regarding the burden estimate or any other aspect of this collection of information, including suggestions for reducing this burden, to the Office of Management and Budget, Paperwork Reduction Project (0348-0043), Washington, DC 20503.

PLEASE DO NOT RETURN YOUR COMPLETED FORM TO THE OFFICE OF MANAGEMENT AND BUDGET. SEND IT TO THE ADDRESS PROVIDED BY THE SPONSORING AGENCY.

This is a standard form used by applicants as a required facesheet for preapplications and applications submitted for Federal assistance. It will be used by Federal agencies to obtain applicant certification that States which have established a review and comment procedure in response to Executive Order 12372 and have selected the program to be included in their process, have been given an opportunity to review the applicant's submission.

Item:	Entry:
1.	Self-explanatory.
2.	Date application submitted to Federal agency (or State if applicable) and applicant's control number (if applicable).
3.	State use only (if applicable).
4.	If this application is to continue or revise an existing award, enter present Federal identifier number. If for a new project, leave blank.
5.	Legal name of applicant, name of primary organizational unit which will undertake the assistance activity, complete address of the applicant, and name and telephone number of the person to contact on matters related to this application.
6.	Enter Employer Identification Number (EIN) as assigned by the Internal Revenue Service.
7.	Enter the appropriate letter in the space provided.
8.	Check appropriate box and enter appropriate letter(s) in the space(s) provided: -- "New" means a new assistance award. -- "Continuation" means an extension for an additional funding/budget period for a project with a projected completion date. -- "Revision" means any change in the Federal Government's financial obligation or contingent liability from an existing obligation.
9.	Name of Federal agency from which assistance is being requested with this application.
10.	Use the Catalog of Federal Domestic Assistance number and title of the program under which assistance is requested.
11.	Enter a brief descriptive title of the project. If more than one program is involved, you should append an explanation on a separate sheet. If appropriate (e.g., construction or real property projects), attach a map showing project location. For preapplications, use a separate sheet to provide a summary description of this project.

Item:	Entry:
12.	List only the largest political entities affected (e.g., State, counties, cities).
13.	Self-explanatory.
14.	List the applicant's Congressional District and any District(s) affected by the program or project.
15.	Amount requested or to be contributed during the first funding/budget period by each contributor. Value of in-kind contributions should be included on appropriate lines as applicable. If the action will result in a dollar change to an existing award, indicate *only* the amount of the change. For decreases, enclose the amounts in parentheses. If both basic and supplemental amounts are included, show breakdown on an attached sheet. For multiple program funding, use totals and show breakdown using same categories as item 15.
16.	Applicants should contact the State Single Point of Contact (SPOC) for Federal Executive Order 12372 to determine whether the application is subject to the State intergovernmental review process.
17.	This question applies to the applicant organization, not the person who signs as the authorized representative. Categories of debt include delinquent audit disallowances, loans and taxes.
18.	To be signed by the authorized representative of the applicant. A copy of the governing body's authorization for you to sign this application as official representative must be on file in the applicant's office. (Certain Federal agencies may require that this authorization be submitted as part of the application.)

BUDGET INFORMATION - Non-Construction Programs

OMB Approval No. 0348-0044

SECTION A - BUDGET SUMMARY

Grant Program Function or Activity (a)	Catalog of Federal Domestic Assistance Number (b)	Estimated Unobligated Funds		New or Revised Budget		
		Federal (c)	Non-Federal (d)	Federal (e)	Non-Federal (f)	Total (g)
1. Phase I - Chinook Salmon Age Determination		$	$	$ 45,262.25	$	$ 45,262.25
2. Phase II - Chinook Salmon Age Determination				54,554.50		54,554.50
3.						
4.						
5. Totals		$	$	$	$	$ 99,816.75

SECTION B - BUDGET CATEGORIES

6. Object Class Categories	GRANT PROGRAM, FUNCTION OR ACTIVITY				Total
	(1) Phase I	(2) Phase II	(3)	(4)	(5)
a. Personnel	$ 38,734.99	$ 38,500.	$	$	$ 77,234.99
b. Fringe Benefits					
c. Travel					
d. Equipment					
e. Supplies					
f. Contractual					
g. Construction					
h. Other	2,000	7,000			9,000.
i. Total Direct Charges *(sum of 6a-6h)*	40,734.99	45,500			86,234.99
j. Indirect Charges	4,527.26	9,054.50			13,581.76
k. TOTALS *(sum of 6i and 6j)*	$ 45,262.25	$ 54,554.50	$	$	$ 99,816.75
7. Program Income	$ 0.00	$	$	$	$

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Previous Edition Usable

Standard Form 424A (Rev. 7-97)
Prescribed by OMB Circular A-102

SECTION C - NON-FEDERAL RESOURCES

(a) Grant Program	(b) Applicant	(c) State	(d) Other Sources	(e) TOTALS
8. Phase I - Chinook Salmon Age Determination	$	$	$ 45,262.25	$45,262.25
9. Phase II - Chinook Salmon Age Determination				54,554.50
10.				
11.				
12. TOTAL *(sum of lines 8-11)*	$	$	$ 45,262.25	$99,816.75

SECTION D - FORECASTED CASH NEEDS

	Total for 1st Year	1st Quarter	2nd Quarter	3rd Quarter	4th Quarter
13. Federal - AFRP/CVPIA Funds	$ 45,262.25	$	$	$	$
14. Non-Federal					
15. TOTAL *(sum of lines 13 and 14)*	$ 45,262.25	$	$	$	$

SECTION E - BUDGET ESTIMATES OF FEDERAL FUNDS NEEDED FOR BALANCE OF THE PROJECT

(a) Grant Program	FUTURE FUNDING PERIODS (Years)			
	(b) First	(c) Second	(d) Third	(e) Fourth
16. Phase I - Chinook Salmon Age Determination	$ 45,262.25	$	$	$
17. Phase II - Chinook Salmon Age Determination		54,554.50		
18.				
19.				
20. TOTAL *(sum of lines 16-19)*	$ 45,262.25	$ 54,554.50	$	$

SECTION F - OTHER BUDGET INFORMATION

21. Direct Charges:	22. Indirect Charges:
$86,234.99	$13,581.76

23. Remarks: Phase I of Chinook Salmon Age Determination Project is funded by AFRP/CVPIA Funds

INSTRUCTIONS FOR THE SF-424A

Public reporting burden for this collection of information is estimated to average 180 minutes per response, including time for reviewing instructions, searching existing data sources, gathering and maintaining the data needed, and completing and reviewing the collection of information. Send comments regarding the burden estimate or any other aspect of this collection of information, including suggestions for reducing this burden, to the Office of Management and Budget, Paperwork Reduction Project (0348-0044), Washington, DC 20503.

PLEASE DO NOT RETURN YOUR COMPLETED FORM TO THE OFFICE OF MANAGEMENT AND BUDGET. SEND IT TO THE ADDRESS PROVIDED BY THE SPONSORING AGENCY.

General Instructions

This form is designed so that application can be made for funds from one or more grant programs. In preparing the budget, adhere to any existing Federal grantor agency guidelines which prescribe how and whether budgeted amounts should be separately shown for different functions or activities within the program. For some programs, grantor agencies may require budgets to be separately shown by function or activity. For other programs, grantor agencies may require a breakdown by function or activity. Sections A, B, C, and D should include budget estimates for the whole project except when applying for assistance which requires Federal authorization in annual or other funding period increments. In the latter case, Sections A, B, C, and D should provide the budget for the first budget period (usually a year) and Section E should present the need for Federal assistance in the subsequent budget periods. All applications should contain a breakdown by the object class categories shown in Lines a-k of Section B.

Section A. Budget Summary Lines 1-4 Columns (a) and (b)

For applications pertaining to a *single* Federal grant program (Federal Domestic Assistance Catalog number) and *not requiring* a functional or activity breakdown, enter on Line 1 under Column (a) the Catalog program title and the Catalog number in Column (b).

For applications pertaining to a *single* program *requiring* budget amounts by multiple functions or activities, enter the name of each activity or function on each line in Column (a), and enter the Catalog number in Column (b). For applications pertaining to multiple programs where none of the programs require a breakdown by function or activity, enter the Catalog program title on each line in *Column* (a) and the respective Catalog number on each line in Column (b).

For applications pertaining to *multiple* programs where one or more programs *require* a breakdown by function or activity, prepare a separate sheet for each program requiring the breakdown. Additional sheets should be used when one form does not provide adequate space for all breakdown of data required. However, when more than one sheet is used, the first page should provide the summary totals by programs.

Lines 1-4, Columns (c) through (g)

For new applications, leave Column (c) and (d) blank. For each line entry in Columns (a) and (b), enter in Columns (e), (f), and (g) the appropriate amounts of funds needed to support the project for the first funding period (usually a year).

For continuing grant program applications, submit these forms before the end of each funding period as required by the grantor agency. Enter in Columns (c) and (d) the estimated amounts of funds which will remain unobligated at the end of the grant funding period only if the Federal grantor agency instructions provide for this. Otherwise, leave these columns blank. Enter in columns (e) and (f) the amounts of funds needed for the upcoming period. The amount(s) in Column (g) should be the sum of amounts in Columns (e) and (f).

For supplemental grants and changes to existing grants, do not use Columns (c) and (d). Enter in Column (e) the amount of the increase or decrease of Federal funds and enter in Column (f) the amount of the increase or decrease of non-Federal funds. In Column (g) enter the new total budgeted amount (Federal and non-Federal) which includes the total previous authorized budgeted amounts plus or minus, as appropriate, the amounts shown in Columns (e) and (f). The amount(s) in Column (g) should not equal the sum of amounts in Columns (e) and (f).

Line 5 - Show the totals for all columns used.

Section B Budget Categories

In the column headings (1) through (4), enter the titles of the same programs, functions, and activities shown on Lines 1-4, Column (a), Section A. When additional sheets are prepared for Section A, provide similar column headings on each sheet. For each program, function or activity, fill in the total requirements for funds (both Federal and non-Federal) by object class categories.

Line 6a-i - Show the totals of Lines 6a to 6h in each column.

Line 6j - Show the amount of indirect cost.

Line 6k - Enter the total of amounts on Lines 6i and 6j. For all applications for new grants and continuation grants the total amount in column (5), Line 6k, should be the same as the total amount shown in Section A, Column (g), Line 5. For supplemental grants and changes to grants, the total amount of the increase or decrease as shown in Columns (1)-(4), Line 6k should be the same as the sum of the amounts in Section A, Columns (e) and (f) on Line 5.

Line 7 - Enter the estimated amount of income, if any, expected to be generated from this project. Do not add or subtract this amount from the total project amount, Show under the program narrative statement the nature and source of income. The estimated amount of program income may be considered by the Federal grantor agency in determining the total amount of the grant.

Section C. Non-Federal Resources

Lines 8-11 Enter amounts of non-Federal resources that will be used on the grant. If in-kind contributions are included, provide a brief explanation on a separate sheet.

> **Column (a)** - Enter the program titles identical to Column (a), Section A. A breakdown by function or activity is not necessary.
>
> **Column (b)** - Enter the contribution to be made by the applicant.
>
> **Column (c)** - Enter the amount of the State's cash and in-kind contribution if the applicant is not a State or State agency. Applicants which are a State or State agencies should leave this column blank.
>
> **Column (d)** - Enter the amount of cash and in-kind contributions to be made from all other sources.
>
> **Column (e)** - Enter totals of Columns (b), (c), and (d).

Line 12 - Enter the total for each of Columns (b)-(e). The amount in Column (e) should be equal to the amount on Line 5, Column (f), Section A.

Section D. Forecasted Cash Needs

Line 13 - Enter the amount of cash needed by quarter from the grantor agency during the first year.

Line 14 - Enter the amount of cash from all other sources needed by quarter during the first year.

Line 15 - Enter the totals of amounts on Lines 13 and 14.

Section E. Budget Estimates of Federal Funds Needed for Balance of the Project

Lines 16-19 - Enter in Column (a) the same grant program titles shown in Column (a), Section A. A breakdown by function or activity is not necessary. For new applications and continuation grant applications, enter in the proper columns amounts of Federal funds which will be needed to complete the program or project over the succeeding funding periods (usually in years). This section need not be completed for revisions (amendments, changes, or supplements) to funds for the current year of existing grants.

If more than four lines are needed to list the program titles, submit additional schedules as necessary.

Line 20 - Enter the total for each of the Columns (b)-(e). When additional schedules are prepared for this Section, annotate accordingly and show the overall totals on this line.

Section F. Other Budget Informatioh

Line 21 - Use this space to explain amounts for individual direct object class cost categories that may appear to be out of the ordinary or to explain the details as required by the Federal grantor agency.

Line 22 - Enter the type of indirect rate (provisional, predetermined, final or fixed) that will be in effect during the funding period, the estimated amount of the base to which the rate is applied, and the total indirect expense.

Line 23 - Provide any other explanations or comments deemed necessary.

ASSURANCES - NON-CONSTRUCTION PROGRAMS

Public reporting burden for this collection of information is estimated to average 15 minutes per response, including time for reviewing instructions, searching existing data sources, gathering and maintaining the data needed, and completing and reviewing the collection of information. Send comments regarding the burden estimate or any other aspect of this collection of information, including suggestions for reducing this burden, to the Office of Management and Budget, Paperwork Reduction Project (0348-0040), Washington, DC 20503.

PLEASE DO NOT RETURN YOUR COMPLETED FORM TO THE OFFICE OF MANAGEMENT AND BUDGET. SEND IT TO THE ADDRESS PROVIDED BY THE SPONSORING AGENCY.

NOTE: Certain of these assurances may not be applicable to your project or program. If you have questions, please contact the awarding agency. Further, certain Federal awarding agencies may require applicants to certify to additional assurances. If such is the case, you will be notified.

As the duly authorized representative of the applicant, I certify that the applicant:

1. Has the legal authority to apply for Federal assistance and the institutional, managerial and financial capability (including funds sufficient to pay the non-Federal share of project cost) to ensure proper planning, management and completion of the project described in this application.

2. Will give the awarding agency, the Comptroller General of the United States and, if appropriate, the State, through any authorized representative, access to and the right to examine all records, books, papers, or documents related to the award; and will establish a proper accounting system in accordance with generally accepted accounting standards or agency directives.

3. Will establish safeguards to prohibit employees from using their positions for a purpose that constitutes or presents the appearance of personal or organizational conflict of interest, or personal gain.

4. Will initiate and complete the work within the applicable time frame after receipt of approval of the awarding agency.

5. Will comply with the Intergovernmental Personnel Act of 1970 (42 U.S.C. §§4728-4763) relating to prescribed standards for merit systems for programs funded under one of the 19 statutes or regulations specified in Appendix A of OPM's Standards for a Merit System of Personnel Administration (5 C.F.R. 900, Subpart F).

6. Will comply with all Federal statutes relating to nondiscrimination. These include but are not limited to: (a) Title VI of the Civil Rights Act of 1964 (P.L. 88-352) which prohibits discrimination on the basis of race, color or national origin; (b) Title IX of the Education Amendments of 1972, as amended (20 U.S.C. §§1681-1683, and 1685-1686), which prohibits discrimination on the basis of sex; (c) Section 504 of the Rehabilitation Act of 1973, as amended (29 U.S.C. §794), which prohibits discrimination on the basis of handicaps; (d) the Age Discrimination Act of 1975, as amended (42 U.S.C. §§6101-6107), which prohibits discrimination on the basis of age; (e) the Drug Abuse Office and Treatment Act of 1972 (P.L. 92-255), as amended, relating to nondiscrimination on the basis of drug abuse; (f) the Comprehensive Alcohol Abuse and Alcoholism Prevention, Treatment and Rehabilitation Act of 1970 (P.L. 91-616), as amended, relating to nondiscrimination on the basis of alcohol abuse or alcoholism; (g) §§523 and 527 of the Public Health Service Act of 1912 (42 U.S.C. §§290 dd-3 and 290 ee 3), as amended, relating to confidentiality of alcohol and drug abuse patient records; (h) Title VIII of the Civil Rights Act of 1968 (42 U.S.C. §§3601 et seq.), as amended, relating to nondiscrimination in the sale, rental or financing of housing; (i) any other nondiscrimination provisions in the specific statute(s) under which application for Federal assistance is being made; and, (j) the requirements of any other nondiscrimination statute(s) which may apply to the application.

7. Will comply, or has already complied, with the requirements of Titles II and III of the Uniform Relocation Assistance and Real Property Acquisition Policies Act of 1970 (P.L. 91-646) which provide for fair and equitable treatment of persons displaced or whose property is acquired as a result of Federal or federally-assisted programs. These requirements apply to all interests in real property acquired for project purposes regardless of Federal participation in purchases.

8. Will comply, as applicable, with provisions of the Hatch Act (5 U.S.C. §§1501-1508 and 7324-7328) which limit the political activities of employees whose principal employment activities are funded in whole or in part with Federal funds.

9. Will comply, as applicable, with the provisions of the Davis-Bacon Act (40 U.S.C. §§276a to 276a-7), the Copeland Act (40 U.S.C. §276c and 18 U.S.C. §874), and the Contract Work Hours and Safety Standards Act (40 U.S.C. §§327-333), regarding labor standards for federally-assisted construction subagreements.

10. Will comply, if applicable, with flood insurance purchase requirements of Section 102(a) of the Flood Disaster Protection Act of 1973 (P.L. 93-234) which requires recipients in a special flood hazard area to participate in the program and to purchase flood insurance if the total cost of insurable construction and acquisition is $10,000 or more.

11. Will comply with environmental standards which may be prescribed pursuant to the following: (a) institution of environmental quality control measures under the National Environmental Policy Act of 1969 (P.L. 91-190) and Executive Order (EO) 11514; (b) notification of violating facilities pursuant to EO 11738; (c) protection of wetlands pursuant to EO 11990; (d) evaluation of flood hazards in floodplains in accordance with EO 11988; (e) assurance of project consistency with the approved State management program developed under the Coastal Zone Management Act of 1972 (16 U.S.C. §§1451 et seq.); (f) conformity of Federal actions to State (Clean Air) Implementation Plans under Section 176(c) of the Clean Air Act of 1955, as amended (42 U.S.C. §§7401 et seq.); (g) protection of underground sources of drinking water under the Safe Drinking Water Act of 1974, as amended (P.L. 93-523); and, (h) protection of endangered species under the Endangered Species Act of 1973, as amended (P.L. 93-205).

12. Will comply with the Wild and Scenic Rivers Act of 1968 (16 U.S.C. §§1271 et seq.) related to protecting components or potential components of the national wild and scenic rivers system.

13. Will assist the awarding agency in assuring compliance with Section 106 of the National Historic Preservation Act of 1966, as amended (16 U.S.C. §470), EO 11593 (identification and protection of historic properties), and the Archaeological and Historic Preservation Act of 1974 (16 U.S.C. §§469a-1 et seq.).

14. Will comply with P.L. 93-348 regarding the protection of human subjects involved in research, development, and related activities supported by this award of assistance.

15. Will comply with the Laboratory Animal Welfare Act of 1966 (P.L. 89-544, as amended, 7 U.S.C. §§2131 et seq.) pertaining to the care, handling, and treatment of warm blooded animals held for research, teaching, or other activities supported by this award of assistance.

16. Will comply with the Lead-Based Paint Poisoning Prevention Act (42 U.S.C. §§4801 et seq.) which prohibits the use of lead-based paint in construction or rehabilitation of residence structures.

17. Will cause to be performed the required financial and compliance audits in accordance with the Single Audit Act Amendments of 1996 and OMB Circular No. A-133, "Audits of States, Local Governments, and Non-Profit Organizations."

18. Will comply with all applicable requirements of all other Federal laws, executive orders, regulations, and policies governing this program.

SIGNATURE OF AUTHORIZED CERTIFYING OFFICIAL	TITLE
Dean Marston	SUPERVISOR
APPLICANT ORGANIZATION	DATE SUBMITTED
CDFG	5-15-00

Agreement No.:____________________

Exhibit:____________________

STANDARD CLAUSES – INTERAGENCY AGREEMENTS

Audit Clause. For Agreements in excess of $10,000, the parties shall be subject to the examination and audit of the State Auditor for a period of three years after final payment under the Agreement. (Government Code Section 8546.7).

Availability of Funds. Work to be performed under this Agreement is subject to availability of funds through the State's normal budget process.

Interagency Payment Clause. For services provided under this Agreement, charges will be computed in accordance with State Administrative Manual Sections 8752 and 8752.1.

Termination Clause. Either State agency may terminate this Agreement upon thirty (30) days' advance written notice. The State agency providing the services shall be reimbursed for all reasonable expenses incurred up to the date of termination.

Severability. If any provision of this Agreement is held invalid or unenforceable by any court of final jurisdiction, it is the intent of the parties that all other provisions of this Agreement be construed to remain fully valid, enforceable, and binding on the parties.

Y2K Language. The Contractor warrants and represents that the goods or services sold, leased, or licensed to the State of California, its agencies, or its political subdivisions, pursuant to this Agreement are "Year 2000 compliant" For purposes of this Agreement, a good or service is Year 2000 compliant if it will continue to fully function before, at, and after the Year 2000 without interruption and, if applicable, with full ability to accurately and unambiguously process, display, compare, calculate, manipulate, and otherwise utilize date information. This warranty and representation supersedes all warranty disclaimers and limitations and all limitations on liability provided by or through the Contractor.

U.S. Department of the Interior

Certifications Regarding Debarment, Suspension and Other Responsibility Matters, Drug-Free Workplace Requirements and Lobbying

Persons signing this form should refer to the regulations referenced below for complete instructions:

Certification Regarding Debarment, Suspension, and Other Responsibility Matters - Primary Covered Transactions - **The prospective primary participant further agrees by submitting this proposal that it will include the clause titled, "Certification Regarding Debarment, Suspension, Ineligibility and Voluntary Exclusion - Lower Tier Covered Transaction," provided by the department or agency entering into this covered transaction, without modification, in all lower tier covered transactions and in all solicitations for lower tier covered transactions.** See below for language to be used; use this form for certification and sign; or use Department of the Interior Form 1954 (DI-1954). (See Appendix A of Subpart D of 43 CFR Part 12.)

Certification Regarding Debarment, Suspension, Ineligibility and Voluntary Exclusion - Lower Tier Covered Transactions - (See Appendix B of Subpart D of 43 CFR Part 12.)

Certification Regarding Drug-Free Workplace Requirements - Alternate I. (Grantees Other Than Individuals) and Alternate II. (Grantees Who are Individuals) - (See Appendix C of Subpart D of 43 CFR Part 12.)

Signature on this form provides for compliance with certification requirements under 43 CFR Parts 12 and 18. The certifications shall be treated as a material representation of fact upon which reliance will be placed when the Department of the Interior determines to award the covered transaction, grant, cooperative agreement or loan.

PART A: Certification Regarding Debarment, Suspension, and Other Responsibility Matters - Primary Covered Transactions

---

CHECK __ IF THIS CERTIFICATION IS FOR A PRIMARY COVERED TRANSACTION AND IS APPLICABLE.

(1) The prospective primary participant certifies to the best of its knowledge and belief, that it and its principals:

(a) Are not presently debarred, suspended, proposed for debarment, declared ineligible, or voluntarily excluded from covered transactions by any Federal department or agency;

(b) Have not within a three-year period preceding this proposal been convicted of or had a civil judgment rendered against them for commission of fraud or a criminal offense in connection with obtaining, attempting to obtain, or performing a public (Federal, State or local) transaction or contract under a public transaction; violation of Federal or State antitrust statutes or commission of embezzlement, theft, forgery, bribery, falsification or destruction of records, making false statements, or receiving stolen property;

(c) Are not presently indicted for or otherwise criminally or civilly charged by a governmental entity (Federal, State or local) with commission of any of the offenses enumerated in paragraph (1)(b) of this certification; and

(d) Have not within a three-year period preceding this application/proposal had one or more public transactions (Federal, State or local) terminated for cause or default.

(2) Where the prospective primary participant is unable to certify to any of the statements in this certification, such prospective participant shall attach an explanation to this proposal.

PART B: Certification Regarding Debarment, Suspension, Ineligibility and Voluntary Exclusion - Lower Tier Covered Transactions

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CHECK __ IF THIS CERTIFICATION IS FOR A LOWER TIER COVERED TRANSACTION AND IS APPLICABLE.

(1) The prospective lower tier participant certifies, by submission of this proposal, that neither it nor its principals is presently debarred, suspended, proposed for debarment, declared ineligible, or voluntarily excluded from participation in this transaction by any Federal department or agency.

(2) Where the prospective lower tier participant is unable to certify to any of the statements in this certification, such prospective participant shall attach an explanation to this proposal.

PART C: Certification Regarding Drug-Free Workplace Requirements

CHECK ✓ IF THIS CERTIFICATION IS FOR AN APPLICANT WHO IS NOT AN INDIVIDUAL.

Alternate I. (Grantees Other Than Individuals)

A. The grantee certifies that it will or continue to provide a drug-free workplace by:

(a) Publishing a statement notifying employees that the unlawful manufacture, distribution, dispensing, possession, or use of a controlled substance is prohibited in the grantee's workplace and specifying the actions that will be taken against employees for violation of such prohibition;

(b) Establishing an ongoing drug-free awareness program to inform employees about--
(1) The dangers of drug abuse in the workplace;
(2) The grantee's policy of maintaining a drug-free workplace;
(3) Any available drug counseling, rehabilitation, and employee assistance programs; and
(4) The penalties that may be imposed upon employees for drug abuse violations occurring in the workplace;

(c) Making it a requirement that each employee to be engaged in the performance of the grant be given a copy of the statement required by paragraph (a);

(d) Notifying the employee in the statement required by paragraph (a) that, as a condition of employment under the grant, the employee will --
(1) Abide by the terms of the statement; and
(2) Notify the employer in writing of his or her conviction for a violation of a criminal drug statute occurring in the workplace no later than five calendar days after such conviction;

(e) Notifying the agency in writing, within ten calendar days after receiving notice under subparagraph (d)(2) from an employee or otherwise receiving actual notice of such conviction. Employers of convicted employees must provide notice, including position title, to every grant officer on whose grant activity the convicted employee was working, unless the Federal agency has designated a central point for the receipt of such notices. Notice shall include the identification number(s) of each affected grant;

(f) Taking one of the following actions, within 30 calendar days of receiving notice under subparagraph (d)(2), with respect to any employee who is so convicted --
(1) Taking appropriate personnel action against such an employee, up to and including termination, consistent with the requirements of the Rehabilitation Act of 1973, as amended; or
(2) Requiring such employee to participate satisfactorily in a drug abuse assistance or rehabilitation program approved for such purposes by a Federal, State, or local health, law enforcement, or other appropriate agency;

(g) Making a good faith effort to continue to maintain a drug-free workplace through implementation of paragraphs (a), (b), (c), (d), (e) and (f).

B. The grantee may insert in the space provided below the site(s) for the performance of work done in connection with the specific grant:

Place of Performance (Street address, city, county, state, zip code)

1234 E SHAW AVE
FRESNO, CA
93710

Check __ if there are workplaces on file that are not identified here.

PART D: Certification Regarding Drug-Free Workplace Requirements

CHECK __ IF THIS CERTIFICATION IS FOR AN APPLICANT WHO IS AN INDIVIDUAL.

Alternate II. (Grantees Who Are Individuals)

(a) The grantee certifies that, as a condition of the grant, he or she will not engage in the unlawful manufacture, distribution, dispensing, possession, or use of a controlled substance in conducting any activity with the grant;

(b) If convicted of a criminal drug offense resulting from a violation occurring during the conduct of any grant activity, he or she will report the conviction, in writing, within 10 calendar days of the conviction, to the grant officer or other designee, unless the Federal agency designates a central point for the receipt of such notices. When notice is made to such a central point, it shall include the identification number(s) of each affected grant.

PART E: **Certification Regarding Lobbying**
Certification for Contracts, Grants, Loans, and Cooperative Agreements

CHECK __ IF CERTIFICATION IS FOR THE AWARD OF ANY OF THE FOLLOWING AND THE AMOUNT EXCEEDS $100,000: A FEDERAL GRANT OR COOPERATIVE AGREEMENT, SUBCONTRACT, OR SUBGRANT UNDER THE GRANT OR COOPERATIVE AGREEMENT.

CHECK __ IF CERTIFICATION IS FOR THE AWARD OF A FEDERAL LOAN EXCEEDING THE AMOUNT OF $150,000, OR A SUBGRANT OR SUBCONTRACT EXCEEDING $100,000, UNDER THE LOAN.

The undersigned certifies, to the best of his or her knowledge and belief, that:

(1) No Federal appropriated funds have been paid or will be paid, by or on behalf of the undersigned, to any person for influencing or attempting to influence an officer or employee of an agency, a Member of Congress, and officer or employee of Congress, or an employee of a Member of Congress in connection with the awarding of any Federal contract, the making of any Federal grant, the making of any Federal loan, the entering into of any cooperative agreement, and the extension, continuation, renewal, amendment, or modification of any Federal contract, grant, loan, or cooperative agreement.

(2) If any funds other than Federal appropriated funds have been paid or will be paid to any person for influencing or attempting to influence an officer or employee of any agency, a Member of Congress, an officer or employee of Congress, or an employee of a Member of Congress in connection with this Federal contract, grant, loan, or cooperative agreement, the undersigned shall complete and submit Standard Form-LLL, "Disclosure Form to Report Lobbying," in accordance with its instructions.

(3) The undersigned shall require that the language of this certification be included in the award documents for all subawards at all tiers (including subcontracts, subgrants, and contracts under grants, loans, and cooperative agreements) and that all subrecipients shall certify accordingly.

This certification is a material representation of fact upon which reliance was placed when this transaction was made or entered into. Submission of this certification is a prerequisite for making or entering into this transaction imposed by Section 1352, title 31, U.S. Code. Any person who fails to file the required certification shall be subject to a civil penalty of not less than $10,000 and not more than $100,000 for each such failure.

As the authorized certifying official, I hereby certify that the above specified certifications are true.

SIGNATURE OF AUTHORIZED CERTIFYING OFFICIAL Dean Marston

TYPED NAME AND TITLE DEAN MARSTON - SENIOR BIOLOGIST SUPERVISOR

DATE 5-15-00